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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,730	02/25/2005	Grant Berent Jacobsen	01435.0205	8455

22852 7590 10/11/2006

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EXAMINER

RABAGO, ROBERTO

ART UNIT PAPER NUMBER

1713

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/525,730

Applicant(s)

JACOBSEN ET AL.

Examiner

Roberto Rábago

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8 and 11-28 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/28/2006 has been entered.

2. The following is noted with respect to new process steps directed to the making of the catalyst within the overall claims which are directed to processes of polymerization. Limitations directed to the process of combining and contacting the various catalyst components are understood to be required process steps, and do not merely define product-by-process descriptions of the catalyst used in the claims. Accordingly, the overall claimed process is a combination of processes wherein the first process requires specific steps in the making of the catalyst, and the second process requires using the obtained catalyst in olefin polymerization.

### ***Claim Rejections - 35 USC § 112***

3. Claims 16-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants state that support for new claim 16 can be found at page 3, lines 23-33. However, the cited passage fails to provide support for the claim language "the organometallic compound (c) being added as a separate component to the reactor in the presence of the activated catalyst component." This passage is understood to mean that component (c) is added as separate component to a reactor which already contains the activated catalyst component, yet this concept cannot be found in the specification as filed. The last sentence of page 3 is reasonably understood to disclose that the component (c) may be added to the reactor separately, but there appears to be no disclosure of adding (c) separately to a reactor which has been pre-loaded with the activated catalyst.

#### ***Claim Rejections - 35 USC § 102***

4. Claims 1-3, 5, 7, 8 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacobsen et al. (US 5,834,393) for the reasons set forth in item 3 of the Office action mailed 10/6/2005.

Applicants' arguments filed 8/28/2006 have been fully considered but they are not persuasive. Applicants argue that the amendment which requires the catalyst to be contacted in a specific order distinguishes the claims over the Jacobsen reference. However, previously cited Example 29 is still within the scope of the claims. Example

29 recites preparing the catalyst by contacting silica with TEA, then contacting with borate compound, then contacting with metallocene, then contacting with MMAO. Upon addition of the metallocene, the composition meets the requirements of being an "activated catalyst component" because all of the components are present which result in such a composition; subsequently, MMAO is added as a separate component which results in the required catalyst system.

***Claim Rejections - 35 USC § 103***

5. Claims 16-18, 20, and 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen et al. (US 5,834,393).

Examples 1-29 disclose methods of catalyst preparation and olefin polymerization using a catalyst comprising borate salt including an anion with active hydrogen, in combination with metallocene MCpTi(II). Missing from the reference is specific disclosure to add an alumoxane to a reactor which already contains the activator and metallocene. However, the reference states at col. 24, lines 7-14 that impurity scavengers are recommended, including the use of alumoxanes. The reference further recommends the use of continuous conditions (Example 28). One of ordinary skill in the art would be motivated to add alumoxane to the system as an impurity scavenger after the initial charge of activated catalyst in at least those embodiments which require continuous addition of components such as solvent, monomer, and hydrogen for the purpose of maintaining high catalyst activity.

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6. Claims 4 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen et al. (US 5,834,393) in view of Resconi et al. (US 6,608,224).

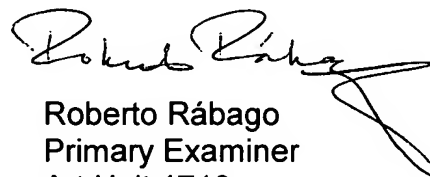
The parent claims are discussed with respect to Jacobsen '393 above. Missing from the primary reference is disclosure of the claimed alumoxane. However, alumoxanes in general have been recommended, and therefore one of ordinary skill in the art would be motivated to use at least any of the most conventional alumoxanes which are commonly used in conjunction with metallocene catalysts for the polymerization of olefins, including TIBAO. Evidence for this assertion may be found, for example, in Resconi, which teaches the adjunct use of a variety of common alumoxanes, including TIBAO, as impurity scavengers (col. 16, lines 18-23).

7. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rábago whose telephone number is (571) 272-1109. The examiner can normally be reached on Monday - Friday from 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Roberto Rábago  
Primary Examiner  
Art Unit 1713

RR  
September 27, 2006